SRS Document for Library management

1. Introduction:

1.1 Purpose of this Document:

The purpose of this document is to define the requirements for the Library management System (LMS) to guide developers and stakeholders

1.2 Scope of the Document

Describes the objective, estimated cost, and scope for developing the LMS to manage book inventories and member records.

1.3 Overview:

LMS ~~will~~ will automate library operations, including book inventory, borrowing, and return process, with features like catalog searching and due date notifications.

2. General Description:

The LMS aims to digitize traditional library process, providing benefits such as efficient resource management, quick access to book inventories, and ease of record maintenance. Key user types include library staff (admin), member (student, staff), and visitors. The system will offer a user friendly interface for all user types

3. Functional Requirements:

3.1 User Management: The system will allow the registration of new members, updating of user profiles, and deactivation of inactive accounts

3.2 Book management: Admin will be able to add, remove, & update book records, including details, and send notifications for over due books

3.3 Lending And Return System: The system will manage borrowing and returning of books, tracks due date.

3.4 Search functionality: Users can search the catalog using keywords.

3.5 Reporting: Admin can generate reports on library activities, including borrow rate, member activity, and book popularity.

4. Interface Requirements:

4.1 User Interface (UI): The system will feature an intuitive web-based interface for both admins & members. This includes dashboards for managing books, viewing borrowing history.

4.2 Database Interface: The system will connect to a backend database for storing and retrieving info related to books, users & transaction.

4.3 External Interface: The system will interact with email service for sending notification to users.

5. Performance Requirement:

5.1 Response Time: The system should respond to user queries within 2 seconds.

5.2 Throughput: The system must support up to 500 simultaneous users without significant performance degradation

5.3 Error rate: The error rate for processing requests should be less than 1%.

6. Design Constraints:

6.1 Platform: The system will be developed as a web-based solution, supporting modern browser such as chrome, firefox & Edge.

6.2 Database Constraints: The system must use MySQL for database management.

6.3 Security Constraints: Access to administrative functions must be restricted to authorized personnel only.

7. Non-Functional Attributes:

7.1 Security: The system will use HTTPS for secure communication. User credentials and sensitive data will be encrypted.

7.2 Scalability: The system will be designed to scale with the library's growing collection and user base.

7.3 Reliability: The system must achieve 99.9% uptime to ensure availability.

7.4 Usability: The interface should be intuitive enough for users of all skill levels.

8. Preliminary Schedule and Budget:

8.1 Development Time: Estimated 6 months.

8.2 Budget: Estimated for the project is $50,000, including design, development testing, deployment.

Splong

1) RS - ? 5000
2) PSP - ? 25,000
3) VSV ? 10,000
4) STR ? 10,000